Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for removing defects from a semiconductor surface, comprising:

coating the semiconductor surface and the defects with a protective layer, wherein the protective layer has a completely planar top surface covering top potions of the defects, and wherein the semiconductor surface and the defects are composed of the same material;

thinning the protective layer to selectively remove a portion of the protective layer wherein remaining portions of the protective layer partially reveal top portions of the defects;

removing the defects; and

after removing the defects, removing the remaining portions of the protective layer.

2. (previously presented) The method of claim 1 wherein the protective layer uniformly covers the defects prior to the step of thinning.

3. (previously presented) The method of claim 1 wherein the protective layer is a photoresist layer.

4. (Original) The method of claim 3 wherein the photoresist layer has a thickness from about 5 to about 10 microns.

5. (Original) The method of claim 4 wherein the photoresist layer has a thickness of about 8 microns.

Claims 6-8 are cancelled without prejudice.

9. (Original) The method of claim 3, wherein said thinning is performed using an inductively coupled plasma (ICP) oxygen process.

10. (Original) The method of claim 9, wherein the process has an etch rate of about 3000 Angstrom/ minute.

11. (Original) The method of claim 3, wherein thinning is performed by reactive ion etching (RIE).

12. (Original) The method of claim 3, wherein thinning is performed by electron cyclotron resonance (ECR).

Claims 13-17 are cancelled without prejudice.

18. (original) The method of claim 1, wherein removing of the defects is performed by etching.

19. (previously presented) The method of claim 1, wherein thinning the protective layer is performed by a process which is identical to a process for removing the protective layer.

20. (previously presented) The method of claim 1, wherein the semiconductor surface comprises a semiconductor selected from a group consisting of GaSb, InAs, Si, InP, GaAs, InAs, and AlSb.

21. (original) The method of claim 1, wherein the defects are removed using a wet chemical etchant.

22. (previously presented) The method of claim 21, wherein the defects are removed using a chemical etchant selected from the group consisting of citric acid, HCl, and acetic acid.

23. (previously presented) The method of claim 21, wherein the defects are removed using a

chemical etchant selected from the group consisting of: i) a KOH (potassium hydroxide), water, isopropyl alcohol additive solution; ii) an ethylene diamine pyrocathecol, water, pyrazine additive solution; iii) a TMAH (tetramethyl ammonium hydroxide), water solution; and iv) a hydrazine (N_2H_4), water, isopropyl alcohol solution.

Claims 24-32 are cancelled without prejudice.

33. (previously presented) The method of claim 1, wherein the defects are growth defects.